



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,919	10/20/2005	Jianli Shi	NL 030488	1359

24737 7590 12/11/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

LANGMAN, JONATHAN C

ART UNIT	PAPER NUMBER
----------	--------------

1794

MAIL DATE	DELIVERY MODE
-----------	---------------

12/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,919	Applicant(s) SHI ET AL.	
	Examiner Jonathan C. Langman	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant claims a coating for a steam generating device. Where is the coating located in/on the coating device? As claimed the coating can be located on the outside of the steam device, in which the applicant is not supported for within the instant specification.

What order are the coating layers deposited? As claimed the coating can have the first coating as a top coat to the second coating, since both layers would still be on the steam device. The applicant is only supported within the specification to have the second coating as the outermost layer.

Regarding claims 3 and 5, it is unclear as to what the applicant means by sol-gel derived. What material is the applicant attempting to claim?

Claim 4 is rejected because the applicant uses the term "the layer", it appears that the applicant is referring to the first layer, however, it is unclear since there are two layers present in claim 3, a first and a second layer. Clarification is requested.

Claim 9 recites the limitation "the layer thickness" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Krautter et al. (US 4,576,864).

In regards to claims 1 and 10, Krautter et al. teach a water spreading layer attached to a base. The water spreading layer is attached through an adhesive layer. The adhesive layer comprises a polymer material that should absorb as little water as possible. The polymeric material must be insoluble (Krautter et al., col. 5, lines 15-28). The top layer is a polymeric layer comprising metal oxides and is hydrophilic (col. 4, lines 33-37 and col. 5, line 54). Krautter et al. do not specifically state that these layers are used in a steam generating device, however these layers are more than capable of being applied in a steam generating device. However, the recitation in the claims that the coating is "for a steam generating device" is merely an intended use. Applicants attention is drawn to MPEP 2111.02 which states that intended use statements must be evaluated to determine whether the intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the intended use recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art and further that the prior art structure is capable of performing the intended use. Given that Krautter et al. discloses a coating comprising a first layer impermeable to water and a hydrophilic layer thereon, as is presently claimed, it is clear that the coating of Krautter et al would be capable of performing the intended use, i.e. for a steam generating device, presently claimed, as required in the above cited portion of the MPEP, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

Regarding claim 2, Krautter et al. teach that the hydrophilic layer may be deposited from a sol gel method, using an aqueous colloidal suspension ((col. 4, lines 37-48) the sol-gel is deposited by spraying and then air dried. This deposition method is similar to the applicants, and therefore it is inherent that the hydrophilic layer will be porous. Furthermore, this layer is expected to have some degree of porosity (not 100% dense).

Regarding claim 3, Krautter teaches that the adhesive layer comprises polymers of amide structure (col. 6, lines 40-50). Furthermore, Krautter teaches that the polymer material can be modified with a methyltrimethoxysilane (col. 7, lines 5-12). This modifier is taught in the instant application to be a hybrid sol-gel precursor. Thus it can be said that the adhesive layer that is modified by the methyltrimethoxysilane material is a sol gel derived material.

Regarding claim 4, Krautter teaches that the adhesive layer may be mix of organic and inorganic material, thus showing, that the layer also comprises inorganic material.

Regarding claims 5-8, the hydrophilic layer is deposited by sol/gel methods. Thus showing a sol-gel derived material. The sol is a colloid of silica particles with average particles sizes of less than 1 micron (col. 4, lines 37-48).

Regarding claim 9, Krautter teaches that the water impermeable adhesive layer has a thickness of 0.01 to 20 microns (col. 7, lines 24-27) and the top hydrophilic layer has a thickness of 0.01 to 4 microns (col. 5, lines 5-6). These ranges overlap the instantly claimed ranges of 10-100 microns and 1-15 microns respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan C. Langman whose telephone number is 571-272-4811. The examiner can normally be reached on Mon-Fri 9:00 am - 4:30 pm EST.

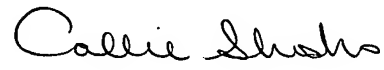
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/553,919
Art Unit: 1794

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCL 


Callie Shosho
Supervisory Patent Examiner